UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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## NOTICE OF ALLOWANCE AND FEE(S) DUE

33794 7590 MATTHIAS SCHOLL 14781 MEMORIAL DRIVE SUITE 1319

HOUSTON, TX 77079

05/21/2008

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EXAMINER WONG, BLANCHE

PAPER NUMBER

ART UNIT

DATE MAILED: 05/21/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/712,476      | 11/13/2003  | Wojciech Lazarski    | LHUD-03201-UUS      | 8321             |

TITLE OF INVENTION: CABLE MODEM FOR CONNECTING CUSTOMER PREMISES EQUIPMENT AND METHOD OF CONTROLLING FLOW OF DATA BETWEEN CABLE MODEM AND CUSTOMER PREMISES EQUIPMENT

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES          | \$720         | \$300               | \$0                  | \$1020           | 08/21/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This<br>appropriate. All further<br>indicated unless correcte<br>maintenance fee notifical  | correspondence including<br>ad below or directed off  | or tran                                       | smitting the ISSU<br>Patent, advance or<br>in Block 1, by (a                                     | TE FEE and PUBLICAT<br>ders and notification of<br>a) specifying a new corre  | TON FEE (if requestion requestion of the contract of the contr | ired). I<br>vill be<br>and/o                 | Blocks 1 through 5 st<br>mailed to the current<br>(b) indicating a sepa   | hould be completed where<br>correspondence address as<br>trate "FEE ADDRESS" for  |
|---|---|---|--|---|--|--|---|---|
| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)  |   |   |  | No<br>Fee<br>pag<br>bay   | Note: A certificate of mailing can only be used for domestic mailings of the<br>Fee(s) Transmittal. This certificate cannot be used for any other accompanying<br>papers. Each additional paper, such as an assignment or formal drawing, must<br>have its own certificate of mailing or transmission.   |  |   |   |
| 33794<br>MATTHIAS S<br>14781 MEMOR<br>SUITE 1319  | IAL DRIVE   | /2008   |  | T be  | Cer  | tificate                                     | of Mailing or Trans   |   |
| HOUSTON, TX   | 77079   |   |  |   |  |  |   | (Depositor's name)  |
|   |   |   |  |   |  |  |   | (Signature)   |
|   |   |   |  |   |  |  |   | (Date)  |
| APPLICATION NO.   | FILING DATE   |   |  | FIRST NAMED INVENTOR  | ₹  | ATTO   | RNEY DOCKET NO.   | CONFIRMATION NO.  |
| 10/712,476  | 11/13/2003  |   |  | Wojciech Lazarski   |  | LH   | UD-03201-UUS  | 8321  |
| TITLE OF INVENTION<br>OF DATA BETWEEN C   |   |   |  | TOMER PREMISES EQUENTENT  | JIPMENT AND M  | ЕТНО   | D OF CONTROLLIN   | G FLOW  |
| APPLN, TYPE   | SMALL ENTITY  | IS  | SUE FEE DUE  | PUBLICATION FEE DUE   | PREV. PAID ISSU  | E FEE  | TOTAL FEE(S) DUE  | DATE DUE  |
| nonprovisional  | YES   |   | \$720  | \$300   | \$0  |  | \$1020  | 08/21/2008  |
| EXAM  | INER  |   | ART UNIT   | CLASS-SUBCLASS  | 1  |  |   |   |
| WONG, B   | LANCHE  |   | 2619   | 370-422000  | -  |  |   |   |
| "Fee Address" ind<br>PTO/SB/47; Rev 03-0<br>Number is required.  3. ASSIGNEE NAME A   | ondence address (or Cha<br>3/122) attached.<br>ication (or "Fee Address<br>2 or more recent) attach   | nge of "Indicated. Use                        | Correspondence  ation form of a Customer  E PRINTED ON   | data will appear on the p<br>I' a substitute for filing an  | o 3 registered pater<br>wely,<br>le firm (having as a<br>agent) and the nam<br>orneys or agents. If<br>printed.  pe)  patent. If an assign<br>assignment.  | memb<br>es of u<br>no nan                    | er a 2p to p to e is 3  | ocument has been filed for  |
| Please check the appropri   | iate assignee category or   | catego  |  | . Payment of Fee(s): (Ple   | Individual 🗆 C   | orporati                                     | on or other private gro   | oup entity Government   |
| Issue Fee   |   |   |  | A check is enclosed.  Payment by credit ca  | F PEO 2026   |  | ab a d  |   |
| Advance Order -   | o small entity discount j<br>f of Copies  | permitte                                      | ed)  | The Director is hereb<br>overpayment, to Dep  | y authorized to char   | ge the                                       | required fee(s), any de   | ficiency, or credit any<br>n extra copy of this form).  |
|   | s SMALL ENTITY state  | ıs. See                                       | 37 CFR 1.27.   | b. Applicant is no los  |  |  |   |   |
| NOTE: The Issue Fee an<br>interest as shown by the  | d Publication Fee (if req<br>records of the United Sta  | uired) v<br>tes Pat                           | will not be accepted<br>and Trademark  | from anyone other than<br>Office.   | the applicant; a reg   | stered                                       | attorney or agent; or th  | e assignee or other party in  |
| Authorized Signature  |   |   |  |   | Date   |  |   |   |
| Typed or printed name   |   |   |  |   | Registration 1   | lo   |   |   |
| This collection of inform<br>an application. Confident<br>submitting the complete<br>this form and/or suggesti<br>Box 1450, Alexandria, V<br>Alexandria, Virginia 223 | ation is required by 37 C<br>tiality is governed by 35<br>I application form to the<br>ons for reducing this bu<br>irginia 22313-1450. DC<br>13-1450. | FR 1.3<br>U.S.C.<br>USPT<br>rden, sl<br>D NOT | 11. The informatic<br>122 and 37 CFR<br>O. Time will vary<br>nould be sent to th<br>SEND FEES OR | on is required to obtain or<br>1.14. This collection is es<br>depending upon the indi<br>e Chief Information Offic<br>COMPLETED FORMS T | retain a benefit by<br>stimated to take 12<br>vidual case. Any co<br>er, U.S. Patent and<br>O THIS ADDRES:   | he pub<br>minute<br>mmen<br>Trader<br>S. SEN | tic which is to file (and<br>to complete, including<br>s on the amount of tin<br>nark Office, U.S. Depo<br>D TO: Commissioner | by the USPTO to process)<br>g gathering, preparing, and<br>me you require to complete<br>artment of Commerce, P.O.<br>for Patents, P.O. Box 1450, |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



## UNITED STATES PATENT AND TRADEMARK OFFICE

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s: COMMISSIONER FOR PATENTS P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

| APPLICATION NO                  |      | FILING DATE FIRST NAMED INVENTOR |                   | ATTORNEY DOCKET NO.             | CONFIRMATION NO. |
|---------------------------------|------|----------------------------------|-------------------|---------------------------------|------------------|
| 10/712,476                      |      | 11/13/2003                       | Wojciech Lazarski | LHUD-03201-UUS                  | 8321             |
| 33794                           | 7590 | 05/21/2008                       |                   | EXAM                            | UNER             |
| MATTHIAS SCHOLL                 |      |                                  | WONG, BLANCHE     |                                 |                  |
| 14781 MEMORIAL DRIVE            |      |                                  |                   | ART UNIT                        | PAPER NUMBER     |
| SUITE 1319<br>HOUSTON, TX 77079 |      |                                  |                   | 2619<br>DATE MAII ED: 05/21/200 | 8                |

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 752 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 752 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

| Application No. | Applicant(s)    |  |  |
|-----------------|-----------------|--|--|
| 10/712,476      | LAZARSKI ET AL. |  |  |
| Examiner        | Art Unit        |  |  |
| BLANCHE WONG    | 2619            |  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to April 25, 2008.
- 2. The allowed claim(s) is/are 1,4-7,9 (renumbered 1-6 respectively).
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) 

    All b) 

    Some\* c) 

    None of the:
    - 1. Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) hereto or 2) to Paper No./Mail Date
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date \_\_\_\_
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other .

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Application/Control Number: 10/712,476
Art Unit: 2619

- Claims 1.4-7.9 are allowed.
- 2. The following is an examiner's statement of reasons for allowance:

With regard to claims 1 and 9, the prior art of record fails to anticipate or make obvious a cable modem comprising all the components including "a multiplexer of CPE interfaces linked to the CPE interfaces and to the LLC bridge wherein the multiplexer has a table comprising data related to the CPE interfaces, ... and a table with MAC addresses of CPE devices and identifiers of the CPE interfaces wherein each interface identifier is determined by a check-and-associate function, and wherein records to the table with MAC address are added using an adding function, which analyses commands sent by the CPE interfaces to the multiplexer ...."

With regard to claim 5, the prior art of record fails to anticipate or make obvious a method for controlling flow of data between a cable modem and CPE devices linked to the cable modem comprises the steps of "... controlling the input buffer by creating a list of recipient CPE interfaces to which the frame is directed; informing the recipient CPE interfaces about the frame in the input buffer; increasing by one a counter of informed recipient CPE interfaces when any one of the recipient CPE interfaces receives the frames; increasing by one a counter of received frames for each frame received by any one of the recipient CPE interfaces; and determining that the frame is received by all recipient CPE interfaces when the counter of received frames reaches the counter of informed recipient CPE interfaces."

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Application/Control Number: 10/712,476

Art Unit: 2619

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLANCHE WONG whose telephone number is (571)272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct-uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/ Examiner, Art Unit 2619 May 8, 2008

/Edan Orgad/ Supervisory Patent Examiner, Art Unit 2619